

CORNELL UNIVERSITY OFFICIAL PUBLICATION

Announcement of the
New York State
Veterinary College
for 1943-44



VOLUME 34 : NOVEMBER 1, 1942 : NUMBER 7

The University Calendar for 1943-44

Under the accelerated program of instruction now in effect, three 16-week terms will be held during the academic year 1943-44. The summer term will begin on June 28, 1943; the fall term will begin on or about October 25, 1943; and the spring term will begin on or about February 28, 1944. The dates of registration, examinations, brief vacation periods, and other details of the calendar will be announced later. Students who are accepted for admission will be promptly advised of any modifications that may be made in the light of developing needs.

CORNELL UNIVERSITY OFFICIAL PUBLICATION

PUBLISHED BY CORNELL UNIVERSITY AT ITHACA, N. Y.

Monthly in September, October, and November
Semi-monthly, December to August inclusive

[Entered as second-class matter, December 14, 1916, at the post office at Ithaca, New York, under the Act of August 24, 1912]

SPECIAL NOTICE

(Statements in this notice supersede any in this Announcement with which they may be in conflict. Paragraphs in the text which contain superseded material usually are indicated by asterisks.)

As this Announcement goes to press it is not possible to predict changes which the war may necessitate in the curricular offerings, the times of beginning and ending of terms, the requirements for admission, and even whether contracts with the Army will permit acceptance of civilians. The College has been designated as a probable training center of veterinarians under the Army Specialized Training Program, but many details of this plan are not yet available. Those who are interested in matriculating as civilians are advised to write us for the latest information on the subject. As important changes of plan become known they will be explained in loose inserts which will be sent out with this Announcement.

Since June 1942 the College has been operating upon an accelerated plan of instruction. For the duration of the war it is expected that there will be three sixteen-week terms each year instead of two. All students must follow this program whereby they will complete in less than three calendar years the work which normally is given in four.

The next matriculation date will be in October, 1943, according to present plans. If the University calendar has been fixed before this Announcement goes to press it will be found on the preceding page. Another class will be admitted in June 1944 and thereafter additional ones at intervals of approximately nine months.

For admission to the October, 1943 class, the latest date for filing applications is May 1. The twenty-five dollar deposit is due June 1 and the vaccination certificate must be received before August 1. For admission in June, 1944, applications must be filed before May 1, and the deposit and vaccination certificate must be received before June 1.

Tuition fees of non-residents shall be payable at the rate of \$100 a term within three weeks after the beginning of each term.

So long as the accelerated program is in operation, students will have no opportunities for making up deficiencies in their farm practice experience. *Accordingly the farm practice requirement must be met before the date of matriculation.* This requirement cannot be easily defined but it may be said that no male applicant should expect approval of his application unless he has had at least twelve weeks of actual experience as a farm worker on a farm where livestock is an important part of the operations. Candidates who have had substantially more than this amount of experience will be favored. Experience gained on teaching and institutional farms, and in animal husbandry courses, is not favored and ordinarily will not meet this requirement. Furthermore, credit is not ordinarily given, or is substantially discounted, for farm work done before the applicant is fifteen years of age.

NEW YORK STATE VETERINARY COLLEGE

FACULTY

EDMUND EZRA DAY, S.B., A.M., Ph.D., LL.D., President of the University.
SIMON HENRY GAGE, B.S., Professor of Histology and Embryology, Emeritus.
WALTER LONG WILLIAMS, Professor of Veterinary Surgery, Emeritus.
GRANT SHERMAN HOPKINS, B.S., D.Sc., D.V.M., Professor of Veterinary Anatomy, Emeritus.
DENNIE HAMMOND UDALL, B.S.A., D.V.M., D.Sc., Professor of Medicine, Emeritus.
WILLIAM ARTHUR HAGAN, D.V.M., M.S., D.Sc., Professor of Bacteriology and Dean of the College.
HOWARD JAY MILKS, D.V.M., Professor of Materia Medica and Director of the Small Animal Clinic.
JAMES NATHAN FROST, D.V.M., Professor of Veterinary Surgery and Director of the Surgical Clinic.
RAYMOND RUSSELL BIRCH, B.S.A., D.V.M., Ph.D., Professor and Superintendent of the Veterinary Experiment Station.
HENRY HUGH DUKES, B.S., D.V.M., M.S., Professor of Veterinary Physiology.
EARL SUNDERVILLE, D.V.M., Professor of Veterinary Anatomy and Secretary of the Faculty.
MYRON GUSTIN FINCHER, D.V.M., M.S., Professor of Veterinary Medicine and Director of the Ambulatory Clinic.
CHARLES ERNEST HAYDEN, A.B., D.V.M., Professor of Veterinary Physiology.
PETER OLAFSON, D.V.M., M.S., Professor of Pathology.
HERBERT LESTER GILMAN, D.V.M., M.S., Ph.D., Professor of Research.
HADLEY CARRUTHERS STEPHENSON, B.S., D.V.M., Professor of Materia Medica and Small Animal Diseases.
EARL LOUIS BRUNETT, D.V.M., M.S., Associate Professor of Poultry Diseases.
DONALD WYCKOFF BAKER, B.S.A., D.V.M., Ph.D., Associate Professor of Parasitology.
ALEXANDER ZEISSIG, B.S.A., D.V.M., M.S., Ph.D., Associate Professor of Bacteriology.
JOSEPH A. DYE, A.B., Ph.D., Associate Professor of Physiology.
KENNETH FRANKLIN HILBERT, D.V.M., Assistant Professor of Poultry Diseases. (Stationed at Farmingdale, L. I.)
WALTER JOSEPH GIBBONS, D.V.M., M.S., Assistant Professor of Medicine and Obstetrics.
CLIFFORD WARREN BARBER, D.V.M., Ph.D., Assistant Professor of Poultry Diseases.
ARTHUR GORDON DANKS, B.S. in Agr., D.V.M., Assistant Professor of Surgery.
MALCOLM EUGENE MILLER, B.S. in Agr., D.V.M., M.S., Ph.D., Assistant Professor of Anatomy.
PINCUS PHILIP LEVINE, B.S., M.S., D.V.M., Ph.D., Assistant Professor of Poultry Diseases.
STEPHEN J. ROBERTS, D.V.M., M.S., Assistant Professor of Medicine and Obstetrics.
WILLIAM MORRIS EVANS, D.V.M., Instructor in Diagnosis.
SETH DARWIN JOHNSON, D.V.M., Instructor in Medicine.
WINFIELD SCOTT STONE, D.V.M., M.S., Ph.D., Instructor in Research.
ALVIN BERNARD HOERLEIN, D.V.M., Instructor in Bacteriology.
MELVIN SIDNEY HOFSTAD, D.V.M., M.S., Instructor in Poultry Diseases.
MILFORD EARL BECKER, D.V.M., Instructor in Physiology.
HENRY DEAN HOPPER, Instructor in Pathology.
ARTHUR S. CHARLES, D.V.M., Instructor in Poultry Diseases. (Stationed at Farmingdale, N. Y.)

CHRISTIAN JOSEPH HALLER, D.V.M., Instructor in Surgery.
 JEAN F. HOFSTAD, A.B., M.S., Research Assistant in Medicine.
 ANSEL R. MARTIN, D.V.M., Assistant in Materia Medica.
 ELLEN T. COOK, A.B., Assistant in Physiology.
 JOHN BENTINCK SMITH, Student Assistant in Bacteriology.
 LEWIS HUGH WILLIAMS, Laboratory Technician.
 MILDRED S. WILLIAMS—Laboratory Helper—A. U. S. Bureau of Animal Industry.
 ROBERT HENRY JOHNSON—Laboratory Aid—A. U. S. Bureau of Animal Industry.
 JACOB A. MEYER, —Laboratory Helper—A. U. S. Bureau of Animal Industry.

ELMER SETH SAVAGE, Ph.D., Professor of Animal Husbandry.
 HAROLD ELLIS ROSS, B.S.A., M.S. in Agr., Professor of Dairy Industry.
 EDWIN SHEPHERD HARRISON, B.S., Professor of Animal Husbandry.
 JOHN PETER WILLMAN, Ph.D., Associate Professor of Animal Husbandry
 WILLIAM F. BRUCE, Ph.D., Assistant Professor of Chemistry.
 R. B. BARDEN, Ph.D., Instructor in Histology and Embryology.
 W. A. WIMSATT, A.B., Assistant in Histology and Embryology.
 GLENN WADE SALISBURY, B.S.A., Ph.D., Associate Professor of Animal Husbandry.
 JOHN IVAN MILLER, B.S., M.S., Ph.D., Associate Professor of Animal Husbandry.
 FRANK V. KOSIKOWSKY, B.S., M.S., Instructor in Animal Industry.
 JAMES CARRICK WHITE, B.S., Instructor in Dairy Industry.

COUNCIL FOR THE NEW YORK STATE VETERINARY COLLEGE

EDMUND E. DAY, <i>Chairman</i>	President of the University
HOLTON V. NOYES	Commissioner of Agriculture
ERNEST E. COLE	Commissioner of Education
GEORGE STODDARD	Grange Trustee
EDWARD R. EASTMAN	Chairman, Committee on Relations with Public Authorities
W. A. HAGAN	Dean, Veterinary College
CARL E. LADD	Dean, College of Agriculture

<i>Elected</i>	<i>Terms</i>
FRANK E. GANNETT	Trustee Term
ROBERT E. TREMAN	Trustee Term
DR. EARL SUNDERVILLE	(1) Faculty Rep., Veterinary College
DR. MILES C. MARKHAM	(3) N. Y. State Veterinary Medical Society Representative
ERNEST STROBECK	(3) Members, N. Y. State Conference
LEIGH G. KIRKLAND	(2) Board of Farm Organizations
CLAYTON G. WHITE	(1)
DR. ALBERT E. MERRY	(1)
DR. FRED D. HOLFORD	(2)
WARREN HAWLEY	(3)

} Members-at-large

LECTURERS, 1941-42

Baker, Jas. A., Rockefeller Institute, *Princeton, N. J.*; Boardman, D. A., practitioner, *Rome, N. Y.*; Carnrite, J. S., practitioner, *Fort Plain, N. Y.*; Case, C. H., veterinary practitioner, *Akron, Ohio*; Corwin, L. A., practitioner, *Jamaica, N. Y.*; Dalrymple, David B. H., New York State Dept. of Agriculture, *Sherburne, N. Y.*; Darby, R. N. G., practitioner, *Somerville, N. J.*; Evans, Chas. A., School of Medicine, University of Rochester; Fortune, L. A., practitioner, *Ogdensburg, N. Y.*; Goss, Leonard J., Curator of Health, N. Y. Zoological Society, *Bronx Park, New York City*; Hopson, George H., DeLaval Separator Co., *New York City*; McCay, C. M., Professor of Animal Nutrition, N. Y. State

College of Agriculture, Cornell University; McNutt, S. H., Associate Professor of Veterinary Research, Division of Veterinary Medicine, Iowa State College; Maxfield, T. B., Certified Public Accountant, *Ithaca, N. Y.*; Maynard, L. A., Professor of Animal Nutrition, N. Y. State College of Agriculture, Cornell University, and Director Federal Nutrition Laboratory, *Ithaca, N. Y.*; Millar, J. A. S., veterinary practitioner, *Deal, N. J.*; Roberts, J. F., *Hamburg, N. Y.*; Sharp, P. F. Professor of Dairy Chemistry, N. Y. State College of Agriculture, Cornell University; Thorp, Frank Jr., Research Associate, Division of Veterinary Science, Michigan State College, and U. S. Divisional Poultry Research Laboratory, *East Lansing, Mich.*; Vose, Col. R. M., Surgeon, *Ithaca, N. Y.*; Williams, W. L., Professor Emeritus, *Ithaca, N. Y.*; Wilson, Lyman, Professor of Law, Cornell University.

THE FOUNDATION OF THE COLLEGE

The New York State Veterinary College was established by act of the State Legislature in 1894: "There is hereby established a State Veterinary College at Cornell University," Laws of New York, 1894, p. 307. By action of the Board of Trustees of Cornell University, June 10, 1894, the location of the College upon the University campus was authorized. It was further enacted that while the University does not undertake any financial responsibility for the buildings, equipment, or maintenance of the College, it does consent to furnish instruction upon such subjects as are or shall be in its curriculum, upon such terms as may be deemed equitable.

By further acts of the Legislature provision was made for the buildings, equipment, and maintenance of the College and finally, in 1897, by "An act to provide for the administration of the State Veterinary College, established by Chapter 153 of the laws of 1894," the Trustees of Cornell University were intrusted with its administration.

OBJECTS OF THE INSTITUTION

As stated in the act to provide for the administration of the State Veterinary College: "The State Veterinary College, established by Chapter 153 of the laws of 1894, shall be known as the New York State Veterinary College. The object of said Veterinary College shall be: To conduct investigations as to the nature, prevention, and cure of all diseases of animals, including such as are communicable to man and such as cause epizootics among live stock; to investigate the economic questions which will contribute to the more profitable breeding, rearing, and utilization of animals; to produce reliable standard preparations of toxins, antitoxins, and other productions to be used in diagnosis, prevention, and cure of diseases, and in the conducting of sanitary work by approved modern methods; and to give instruction in the normal structure and function of the animal body, in the pathology, prevention, and treatment of animal diseases, and in all matters pertaining to sanitary science as applied to live stock and correlatively to the human family."

The New York State Veterinary College was founded to raise the standards of veterinary investigation and instruction to the level of the most recent advances in biology and medicine. According to the 1940 census of the United States the number of farm animals in the State, exclusive of poultry and pet animals, was 3,021,000 of the value of \$178,025,000. This gives some idea of the great financial interest at stake in the matter of live stock. The census report for 1940 gives the value of the live stock of the United States on farms exclusive of pet animals at \$5,181,951,000. The value of poultry in New York State is \$13,553,000. Another consideration is that the normal permanent fertilization of the soil is dependent upon the live stock kept, and that where there is a deficiency of animals, the pro-

ductiveness of the land is steadily exhausted; therefore, the health and improvement of animals and the fostering of animal industry lie at the very foundation of our national wealth. Another and no less potent argument for the higher standard of veterinary education is its influence on the health of the human race. With a long list of communicable diseases which are common to man and beast, it is to the last degree important that measures for the extinction of such contagion in our live stock should receive the best attention of the most highly trained experts.

To justify the liberality of the State in creating this seat of learning, it is the aim of the College to train thoroughly a class of veterinarians for dealing with all diseases and defects that depreciate the value of our live stock, and with the causes that give rise to them. It further aims, as far as it has the means and opportunity, to maintain a center of investigation looking toward discoveries in the nature of diseases, in therapeutics, and in the immunization of animals from contagion; and toward the production of biological products to be employed in diagnosis, treatment, and immunization. So much has been discovered recently in these directions and present knowledge points so unmistakably to coming discoveries, that to neglect this field at the present time would be very unfortunate. Furthermore, it is the purpose of the College to be of as much assistance as possible to the practitioners of veterinary medicine.

SITUATION

The New York State Veterinary College is situated at Ithaca, a city of 21,000 population, at the head of Cayuga Lake, 263 miles from New York City, on the Lehigh Valley and Lackawanna Railroads. The College buildings are near the center of the campus of Cornell University.

BUILDINGS

The College is housed in six principal buildings forming a quadrangle. All of these except the latest are of buff pressed brick; the main portion of the recently constructed Moore Laboratory is of native seam-face limestone.

The main building (James Law Hall) is a three-story building facing East Avenue across a small park. The first floor is largely occupied by the College Museum. Several offices, including that of the College Secretary where students should register, are also found on this floor. The greater part of the second floor is occupied by the laboratories and offices of the Veterinary Experiment Station. The third floor and basement contain the laboratories of the Department of Physiology.

The north wing of this building consists of two stories and houses the laboratories and class rooms of the Department of Anatomy. The south wing contains the office of the Dean and the business offices on the first floor, and the College library on the second. In the rear of this wing is a large auditorium.

The Veranus A. Moore Laboratory of Pathology was completed and equipped in 1938. It is the most complete and best equipped structure of its kind in America. It is an L-shaped building of three stories and a basement. The basement contains the operating machinery for the refrigeration plant, the elevator and the other services, a feed storage room, a cool room for storing paraffin tissue blocks, and a student locker and lounging room. The first floor contains two lecture rooms, two suites of rooms for the general and poultry diagnostic laboratories, respectively, offices and, in the rear, quarters for large experimental animals. The second floor is devoted to the offices and laboratories of pathology. Two undergraduate teaching laboratories, a teaching museum, preparation and slide storage rooms, a photographic unit, a seminar room, and a number of offices and individual research laboratories are found in the main portion of this floor. In the rear, opening on a terrace at the level of the clinic buildings is a large autopsy room, fitted with the most modern of equipment, including a hydraulic table for large animals, smaller tables for small animals, a large refrigeration room, and a small laboratory. The third floor is devoted to bacteriology. Two teaching laboratories, a chemical laboratory, a media kitchen and sterilizing unit connected by an electric dumbwaiter to the laboratories on the first and second floors, and a number of offices and individual research laboratories occupy the greater part of this floor. In the rear are the quarters for small experimental animals.

The Small Animal, the Medical, and the Surgical Buildings form a group, commonly called the Clinical Buildings. They are three stories in height and face Garden Avenue overlooking Alumni Field.

The Small Animal Building contains a large, modern operating room, drug rooms, X-ray room, and kennels and cages for patients. There are a number of wards for infectious diseases and skin diseases. The offices, laboratories, and examining rooms of the clinic are found on the second floor, and the laboratories for materia medica and pharmacy on the third.

The Medical Building contains, on the ground floor, a clinic hall, a drug room, a physical examination room for large animals, wards for patients, and a garage for the cars of the Ambulatory Clinic. The second floor contains wards for patients, a lecture room, a clinical, diagnostic, and research laboratory, and offices. The third floor contains an apartment for the groom and rooms for the internes. A loft provides storage space for hay and grain. A freight elevator provides means of handling feed and large animal patients.

The Surgical Building contains, on the ground floor, two isolation wards for horses and cattle and a demonstration hall. The second floor contains a completely equipped shop for the teaching of horse-shoeing. The third floor is used for classrooms and a museum.

The Surgical Ward is situated behind the Surgical Building. It is two stories high and is devoted almost entirely to stalls for large-animal, surgical patients. At the south end of this building is the

Operating Pavilion, a large operating room equipped with stocks, an hydraulically-controlled operating table, and the necessary sterilizing machines and surgical instruments for aseptic surgery.

The Experiment Station Farm is situated about two and one-half miles east of the Campus and consists of one hundred thirty-three acres. On this farm there are two well-equipped, steam-heated laboratory buildings, one for poultry disease investigation, the other for research in parasitology. There is also a building for the breeding of small, experimental animals, a work shop, six barns for cattle, two for swine, one for horses, and numerous small isolation buildings. Several residences for staff members complete the list of buildings. All buildings are supplied with running water, and the principal ones are lighted with electricity.

LIBRARIES AND MUSEUMS

The Veterinary College not only has a good special library of its own, the Roswell P. Flower Library, but it also enjoys the free use of the University Library and other college libraries containing more than 900,000 volumes and over 2,500 current periodicals and transactions of societies. Its own museum, moreover, is supplemented by other University museums, among which, of particular value to the College, are those of vertebrate and invertebrate zoology (including entomology), agriculture, botany, and geology.

THE ROSWELL P. FLOWER LIBRARY

The College is fortunate in having the Flower Veterinary Library, containing over 14,000 volumes and 130 current periodicals, second to no other special veterinary library in the country. This library is made up of two collections, a small one purchased with state funds, and the main collection purchased with the proceeds of a fund begun by Roswell P. Flower in 1897 with a gift of \$5,000 to the University for the use of the Veterinary College. Four thousand dollars of this gift was used immediately for the purchase of books, leaving \$1,000 as a source of income. This sum was increased, first in 1900 by \$10,000 given by Mrs. Flower, and in 1929 by about \$8,000 added largely through the efforts of Dr. Frank H. Miller, for many years trustee of the University.

Besides texts in the fields covered by the curriculum and related subjects, the library carries over a hundred American and foreign periodicals and receives pertinent publications from all other important colleges and experiment stations. The University also deposits a number of special periodicals and handbooks in this library, which increases its serviceability.

The library is in the south wing of James Law Hall with stack room and spacious reading room open from 8:30-6:30. In the main reading room are the current numbers of periodicals—veterinary and medical—the catalogue, indices, reference books, and texts bearing especially

on class work. In an adjoining room are the stacks, which are generally open to the students.

Books may be drawn for home use as from the University and Agricultural libraries. These libraries and the Chemistry library are also accessible to Veterinary students and extend their opportunities in the fields of general and special literature. The library also borrows books or microfilms from several of the largest medical libraries, thus opening to research workers the main collections of medical literature in the country.

ADMISSION

No student may be admitted to the Veterinary College who has not secured a Veterinary Student Qualifying Certificate from the New York State Education Department. Correspondence about this certificate should be addressed to the Chief, Bureau of Professional Examinations, State Education Department, Albany, New York.

The requirements for this certificate are stated as follows:

"Veterinary Medicine. The preliminary education requirement for admission to the study or practice of veterinary medicine shall be one year of study in a registered college of liberal arts and sciences, or the equivalent. The required year of college study shall include approved courses in English, chemistry, and general biology or zoology covering at least one academic year each. Approved courses covering one academic year shall in each case be substantially equivalent to six semester credit hours."

The *year of study* has been interpreted as meaning the passing of one-fourth as many semester credit units as are required by the particular institution for its baccalaureate degrees. Most institutions require 120 units, but some require 124, and even 128. At least 30 units must be presented, therefore, and in some instances 31, or 32. A *registered* college is one which is registered with, and its curriculum is approved by, the New York State Department of Education. All colleges within New York State which are authorized to grant baccalaureate degrees are registered and approved. This is not true, however, of all such institutions outside of New York State. In general, practically all of the larger colleges and universities are registered. If in doubt as to whether any particular school is registered, please address correspondence to the State Education Department and not to this college.

The approval forms which are returned to applicants by the State Education Department should be filed with the Director of Admissions, Morrill Hall, Ithaca, N. Y.* Certificates are never sent to applicants but to the University when requisition is made for them.

*The *farm practice requirement* of the college is one which must be met before any student is permitted to begin his third year's work as a veterinary student. He may be admitted to the first year class,

*Paragraphs marked with asterisks have been superseded wholly or in part. See the special statement on page 3.

therefore, without the experience necessary to meet this requirement, but such persons are handicapped in the competition for admission by the lack of this experience. Prospective applicants who are not thoroughly familiar with farming practices and especially with the handling of farm livestock, acquired by actual experience, are urged to spend at least one full summer and preferably much longer in actual farm work on general farms.

It is not possible to define precisely and clearly the farm practice requirement. It consists of a minimum of 10 farm practice points, of which not less than five shall be for experience with farm animals, exclusive of poultry. These points are part of an elaborate system of the Farm Practice Department of the New York State College of Agriculture for tabulating the agricultural experience of students. They are given as a result of practical tests of the student's knowledge. It may be said that, in general, a good conscientious student who is fortunate in getting a job on a good general farm usually can obtain sufficient experience in one full summer's work (12 weeks) to meet this requirement. A less aggressive student or one on a less suitable farm may require longer. It is what one knows about farm work and farm animals that counts rather than the time spent on farms. Also, casual farm visits, or summer resort farm contacts, are of little value in satisfying the farm practice requirement.

The applicant should write as early as possible to the Director of Admissions of Cornell University, Morrill Hall, Ithaca, New York, requesting the application forms for admission to the Veterinary College. The Director of Admissions will require a transcript of the applicant's college record; hence the candidate should procure two transcripts, one for the Department of Education at Albany, and the other for the University.

The number of students that can be admitted annually is limited. It is likely that the number of applicants who meet the scholastic requirements will exceed the number that can be accepted. In this case a Committee on Admissions of the faculty of the Veterinary College will select those to be admitted after considering not only the formal preparation but also the available evidence bearing on each applicant's character, seriousness of purpose, and fitness for the work that he proposes to undertake. This committee will require a personal interview, whenever this is feasible.

*Priority of application is not necessarily a determining factor in the selection of students to be admitted; nevertheless, the gathering and weighing of the necessary evidence require time, and, as the Committee will begin filling the eligible list early in the Spring, it is advantageous to the candidate to file his application early. Students who have not completed the work required for the Veterinary Student Qualifying Certificate but expect to do so prior to July 1 may apply and the committee will act on the application provisionally. June 1 is the latest date for filing applications.

*Paragraphs marked with asterisks have been superseded wholly or in part. See the special statement on page 3.

RULES GOVERNING ADMISSION

Applicants for admission must not only satisfy the entrance requirements but must also comply with certain rules of the University, as follows:

1. Every candidate for admission to an undergraduate course of study must file with his application at the Office of Admissions either a certificate of good moral character or, if he has attended some other college or university without graduating from it, a certificate of honorable dismissal from it.

*2. Every candidate for admission must deposit twenty-five dollars with the University. Candidates are warned not to send cash through the mails. A check, draft, or order should be payable to *Cornell University* and should be sent to the Office of Admissions, Cornell University, Ithaca, N. Y., not later than June 1.

If the candidate matriculates, the deposit will be credited to his account, \$10 for the matriculation fee, \$1 for an examination-book fee, and \$14 as a guaranty fund, which every undergraduate student is required to maintain and which is to be refunded upon his graduation or permanent withdrawal, less any indebtedness to the University.

If admission is denied a candidate, the deposit is refunded in full.

*A candidate may withdraw the application for admission, but a charge of \$10 is regularly made for accrued expenses unless the application is withdrawn and a refund of the deposit in full is claimed before the due date. If an application is not withdrawn until after the due date, but is withdrawn before August 31, the \$10 charged for accrued expenses is deducted and \$15 of the deposit is refunded. No refund is made to an applicant who withdraws the application after August 31.

*3. Every student matriculating in the University is required to present to the Director of Admissions a satisfactory certificate of vaccination against smallpox; this certificate to be considered satisfactory only if it certifies to a successful vaccination within five years before the date of entrance or certifies that at least three unsuccessful attempts at vaccination have been made within that same period. The certificate should reach the *Director of Admissions* not later than August 1.

ADMISSION TO ADVANCED STANDING

*Applicants for admission to advanced standing as members of the second, third, or fourth year class must present the necessary educational qualifications for admission to the first year class, and must pass satisfactory examinations in all the work for which they desire advanced credit, or offer satisfactory certificates of the completion of this work in other schools whose entrance requirements and courses of study are equivalent to those of this college. No person will be admitted to any advanced class except at the beginning of the college year in September.

ADMISSION TO GRADUATE STUDY

Graduates of this college or other colleges may enter the Graduate School of Cornell University and pursue work in the Veterinary Col-

*Paragraphs marked with asterisks have been superseded wholly or in part. See the special statement on page 3.

lege and allied departments of the University. A prospective graduate student should consult the *Announcement of the Graduate School* and apply to the Dean of the Graduate School.

ADVANCED WORK AND RESEARCH

The Veterinary College, alone or in combination with other departments of the University, offers advanced students excellent opportunities for study and investigation. Its situation gives it abundant and varied material for research, and it has ample facilities for the prosecution of such work. It encourages graduate and advanced students to carry on independent investigations. Courses of study especially adapted to advanced work and research will be found among those listed on pages 20-29.

SEMINARS

The several departments of the College hold seminars or special conferences for their advanced and graduate students. The seminar hears reports of the results of investigations and the progress of knowledge in its particular field; discusses methods of advanced and independent work such as are expected of those who are preparing theses or prosecuting any special investigation; and hears the reports of the students on the progress of their work. By means of the seminar the student incidentally gains facility in public speaking and fits himself to take a creditable part in the meetings of veterinary or medical societies.

STUDY FOR PRACTITIONERS

The very rapid advance made during recent years in veterinary science and in facilities and methods for teaching it, as well as the advantage to be gained by studying a given subject under more than one teacher, make it highly desirable that busy practitioners should be enabled as far as possible to increase their personal knowledge by means of study at such times as they can leave their practices. The New York State Veterinary College wishes to supply this want so far as practicable and offers every facility at hand to accomplish this end.

Veterinarians who are legally authorized to practice at their places of residence will be admitted to any class in the college at any time and for such period as they may elect, without entrance examinations. They will be wholly free to elect any studies that are being regularly taught at the time, and will be granted all opportunities and facilities offered to regular students so long as these privileges do not interfere with the instruction of the regular students. No tuition will be required from licensed veterinarians practicing in the State of New York. Those taking laboratory courses will be required to pay fees to cover the cost of the material used. Every practicable facility will be offered for special study along desired lines. A study of pages 20-29 (Departments, Methods, and Facilities) will enable a practitioner to determine in advance precisely what work will be in progress at a given date.

This work is offered to veterinarians entirely for the benefit they may derive from increased knowledge in veterinary science and does not contemplate the granting of a degree, certificate, or other evidence of responsibility on the part of the College.

General inquiries in reference to this work should be addressed to the Dean, whereas questions relating to studies in the various departments may be addressed to the heads of the departments concerned.

COMBINED COURSES

Students in the College of Agriculture and in the College of Arts and Sciences of Cornell University may, by a judicious selection of courses, not only obtain the B.S. or A.B. degree but acquire one year's advanced credit in the Veterinary College. The D.V.M. degree may then be obtained after three additional years. Students who wish to follow this course should plan their courses from the very beginning toward this end. They may apply for admission to the Veterinary College at any time after the admission requirements have been met, even though they may not be ready until one or two years later to begin their work.

REGISTRATION

Every student is required to register with the Registrar of the University at the beginning of each term. See the Calendar on page 2 for the exact day. After completing that registration, he must register on the same day with the Secretary of the Veterinary College, Dr. Sunderville, at Room 3, on the first floor of the main building of the College. After being admitted to the University no student is allowed to register after the close of the regular registration day except by special permission.

FOREIGN STUDENTS

A member of the University's staff whose duty is to look after the welfare of students coming from outside the United States is Mr. Donald C. Kerr, Counselor to Foreign Students. They are invited to apply to him for any information they need and to consult him about personal problems, social questions, or difficulties of any kind. His office is at the Cornell Cosmopolitan Club, 301 Bryant Avenue, which has living and dining accommodations for a group of foreign and American students. It is suggested that foreign students write to him before they come to Ithaca, or call on him when they arrive here. He will be glad to meet them at the train, help them find suitable living quarters, either at the Club or elsewhere, and assist them with introductions.

TUITION AND OTHER FEES

**Tuition.* For students not residents of the State of New York the tuition in the Veterinary College is one hundred dollars a term, pay-

*Paragraphs marked with asterisks have been superseded wholly or in part. See the special statement on page 3.

able at the beginning of each term as printed on the registration coupons. Tuition is free to residents of the State of New York. The law governing the administration of the College provides that "no tuition fee shall be required of a student pursuing the regular veterinary course who for a year or more immediately preceding his admission to said veterinary college shall have been a resident of this State." A limited number of tuition scholarships are available to non-residents; see Scholarships, page 17.

Students are advised to consult the *General Information Number* for the University's rules regarding the payment of tuition and other fees.

Laboratory Fees. Every person taking laboratory work is required to pay for the materials actually used. For the first year the laboratory fees will approximate \$51.50; for the second year, \$62; for the third year, \$37.50; for the fourth year, none.

A *Matriculation Fee* of \$10 and an *Examination Book Fee* of \$1 are required of every student upon entrance into the University; these fees must be paid at the time of registration. A new undergraduate student who has made the required deposit of \$25 with the Treasurer need not make an additional payment of these fees, because the Treasurer will draw on the deposit for them.

An *Administration Fee* of \$5 a term is required, at the beginning of each term, of every student.

An *Infirmary Fee* of \$10 a term is required of every student at the beginning of each term. For a statement of the privileges given in return for this fee, see the enclosed statement, "Medical Facilities for Students at Cornell."

A *Willard Straight Hall Membership Fee* of \$5 a term is required, at the beginning of each term, of every student. Its payment entitles the student to a share in the common privileges afforded by the operation of Willard Straight Hall, subject to regulations approved by the Board of Managers of the Hall. A fee of \$5 a term is required of all graduate students except those who are members of the instructing staff, for whom membership is optional. The use of the hall is restricted to those who have paid this fee.

A *Physical Recreation Fee* of \$4 is required at the beginning of each term of every undergraduate man and woman. Its payment entitles the student, either to the use of the Gymnasium and the University Playgrounds and to the use of a locker, with bathing facilities and towels, in the Gymnasium, Barton Hall, or the Schoellkopf Memorial Building, or else to the use of the women's gymnasium, recreation rooms, and playgrounds, and to the use of a locker if that is necessary.

A *Graduation Fee* is required, at least ten days before the degree is to be conferred, of every candidate for a degree. For the first or baccalaureate degree the fee is \$10; for an advanced degree it is \$20. The fee will be returned if the degree is not conferred.

Automobile Registration and Parking. See Automobile Regulations in the *General Information Number*.

Tuition and other fees become due when the student registers. The University allows twenty days of grace after the last registration day of each term. The last day of grace is generally printed on the registration coupon which the student is required to present at the Treasurer's office. Any student who fails to pay his tuition charges, other fees, and other indebtedness to the University, or who, if entitled to free tuition, fails to claim it at the Treasurer's office and to pay his other fees and indebtedness, within the prescribed period of grace, is thereby dropped from the University unless the Treasurer has granted him an extension of time to complete payment. For such extension the student is assessed a fee

of \$2. A fee of \$5 is charged for the late payment where no extension has been granted.

A tuition fee or other fee may be changed by the Trustees at any time without previous notice.

CHARGES FOR MINOR DELINQUENCIES

Every student is held personally responsible for any injury done by him to any of the University's property.

Assessments, charged to the student's account and payable at the Treasurer's office, are levied upon the student in certain circumstances, under the following rules of the University:

A matriculated student desiring to register after the close of registration day shall first pay a fee of \$5. [Students in the Graduate School are excepted.]

A student desiring to file his registration of studies after the date set by his college for filing the same shall first pay a fee of \$2.

A student desiring to take an examination or other test for the removal of a term condition (including the making up of a mark of "absent" or "incomplete") shall first pay a fee of \$2 for each examination or other test.

A student desiring to make an appointment for the required medical examination or conference after twenty days from the last registration day of the term shall first pay a fee of \$2.

For reasons satisfactory to the proper authority any of the above-mentioned assessments (except that levied for examination or other test to remove a condition) may be waived in any individual case if the student's failure to comply with the regulation was due to ill health or to other reason beyond his control. Application for such a waiver should be made to the Dean of the college enrolling the student, or in the case of the medical examination, to the chairman of the Faculty Committee on Health.

SCHOLARSHIPS AND PRIZES

The following scholarships and prizes are offered to students in the Veterinary College as incentives to earnest study:

University Scholarship for Graduates. One University Graduate Scholarship of the value of \$200 is offered annually to a graduate in veterinary medicine. This scholarship is open to graduates of all veterinary schools having requirements for graduation equivalent to those of this college. Applications may be made by graduates or seniors in good standing and should be filed with the Dean of the Graduate School on or before March 15 of the academic year preceding the one for which application is made.

Tuition Scholarships. The trustees have authorized a limited number of scholarships, each of an annual value of \$200, the amount of the annual tuition, to be awarded each year by the Veterinary College. The scholarships are awarded to undergraduate students who are of sufficiently high promise or standing in the judgment of the faculty, who are not residents of New York State, and who have had, before entering, two or more years of college or university training. Each student holding a scholarship must maintain a standing satisfactory to the Veterinary Faculty.

(In recent years the number of New York State applicants has been much greater than can be accommodated. For this reason the number of out-of-state students admitted has been limited and tuition scholarships are rarely awarded. Only those who have extraordinary qualifications and a real need of financial assistance are likely to be considered seriously for these scholarships.)

The Horace K. White Prizes, established by Horace K. White of Syracuse, are awarded annually to meritorious students in the graduating class of the College. They consist of a prize of \$75 to the first in merit and a prize of \$25 to the second in merit.

The Jane Miller Prize of \$40 in veterinary physiology is awarded to the stu-

dent or students doing the best work in this subject. This prize is usually divided into a first prize of \$25 and a second prize of \$15 and awarded at the end of the junior year.

The James Gordon Bennett Prize of \$40 is offered to members of the graduating class. The award is based upon work in the clinics giving evidence of the ability of the recipient to handle diseased animals humanely. Special emphasis is laid upon the ability of the student to apply effectively local and general anaesthesia.

The Anne Besse Prize of \$40 is awarded in the principles and practice of veterinary medicine. This award is based upon work in the clinics giving evidence of ability in clinical diagnosis.

The Charles Gross Bondy Prizes. Two annual prizes to be awarded to the two senior students who rank highest in proficiency in the courses of practical medicine and surgery of small animals. The first prize is \$25 and the second prize is \$15.

The Merry Prize in Anatomy. This prize is bestowed by Albert E. Merry as a memorial to his father, Addison D. Merry. This prize is usually divided into a first prize of \$30 and a second prize of \$20. It is awarded at the end of the sophomore year to the student or students doing the best work in this subject.

The Mary Louise Moore Prize in Bacteriology. This prize was established by a bequest from Dr. Veranus A. Moore in honor of his wife. Dr. Moore was a member of the original faculty of the Veterinary College. He was Professor of Pathology, Bacteriology, and Meat Inspection from 1896 to 1926, and Dean of the Veterinary Faculty from 1907 to 1929.

The proceeds of the endowment (\$40) may be awarded each year upon recommendation of the Head of the Department of Pathology and Bacteriology and with the approval of the Dean of the College either as a prize to students who have done the best work in the Department or a subsidy to encourage individual research work of students by defraying expenses of their experiments.

The Poultry Disease Prize. This prize was established by Dr. Tevis Goldhaft, '35 and Dr. Nathan Wernicoff, '31, of Vineland, N. J. for the purpose of stimulating interest in diseases of poultry. The prize consists of \$50 for the best composition or essay, or for the best original work reported, by a member of the fourth-year class. Competing papers must be submitted not later than the first week of the second term of the college year to the Dean who will appoint a suitable committee to read them and to make recommendations on the award. The award will not be made if, in the judgement of the committee, none of the papers submitted are considered to be sufficiently meritorious.

EXPENSES

Living expenses in Ithaca vary from \$8 to \$12 a week. Books, instruments, stationery, etc., cost about \$40 a year.

The laboratory fees are first year, \$51.50; second year, \$62; third year, \$37.50; fourth year, none.

OPPORTUNITIES FOR SELF-HELP

There is throughout the year occasional and irregular work at hourly compensation in the various departments.

THE RULE GOVERNING STUDENT CONDUCT

The University's rule governing the conduct of students is this: "A student is expected to show both within and without the University unflinching respect for order, morality, personal honor, and the rights of others." The authority to administer this rule and to impose penalties for its violation is vested in the University Committee on Student Conduct. The rule is construed as applicable at all times, in all places, to all students of the University. A student may at any time be removed from the University if, in the opinion of the Committee on Student Conduct, his presence is not conducive to the University's best interests.

PRESCRIBED FOUR-YEAR COURSE

LEADING TO THE DEGREE OF DOCTOR OF VETERINARY MEDICINE (D.V.M.)

REQUIREMENTS FOR GRADUATION

In order to receive the degree of Doctor of Veterinary Medicine (D.V.M.), candidates must satisfy all the entrance requirements (see page 11), must successfully pursue the courses named in the following Schedule of Studies, must have paid all due fees, and must have spent at least one year in residence.

The work of the college is arranged to begin late in September and to close in June. The academic year is divided into two terms. See the Calendar on page 2.

To remain in the Veterinary College, students must pass twelve hours each term with a grade of 70 or higher in six, and must maintain an average of 67 or better for each term.

THE SCHEDULE OF STUDIES

In the following schedule, the figure in the first column after the name of the course is the number of the course and refers to a description on one of the following pages, 20-29; the figures in the second and third columns indicate the hours of credit given for the successful pursuit of the several courses in either term.

FIRST YEAR

<i>Subject</i>	<i>Course</i>	<i>Credit</i>
Anatomy	1	3 —
“	2	1 —
“	3	3 —
“	4	— 6
Histology	6	4 3
Physiology, chemical	11	— 4
“ lectures	12	— 3
Organic Chemistry	375	5 —
Animal Husbandry	1	3 —
Animal Husbandry	10	— 3
Hygiene	1 and 2	— —
Military drill		— —
Total of credit		19 19

SECOND YEAR

Anatomy	5	5 —
Physiology, lectures and recitations	13	3 —
“ laboratory	14	3 —
Pharmacology	20	— 4
Materia Medica and Pharmacy	21	— 2
General Pathology, recitations	40	2 —
“ “ laboratory	40a	2 —
Special Pathology	41	— 2

Special Pathology.....	41a	—	2
General Bacteriology, lectures.....	43	2	—
“ “ laboratory.....	43a	2	—
Pathogenic Bacteriology.....	49	—	2
“ “	49a	—	3
Physical Diagnosis.....	51	—	2
Total of credit.....		19	17

THIRD YEAR

Physiology, applied chemical.....	15	2	—
Embryology.....	9	—	2
Diseases of Small Animals.....	22	2	—
Materia Medica, recitations.....	23	2	—
Small Animal Clinic.....	25	1	1
Consulting Clinic.....	34	1	1
General Surgery.....	30	4	—
Surgical Exercises.....	31	1	—
Special Surgery.....	32	—	5
Dairy.....	3	—	4
Poultry Diseases.....	46	—	2
Food Hygiene.....	48	—	2
Parasites.....	62	2	—
“	62a	1	—
Medicine.....	50	3	2
Ophthalmology.....	55	—	1
Total of credit.....		19	20

FOURTH YEAR

Diseases of Small Animals.....	22a	2	—
Small Animal Clinic.....	25	1	1
Consulting Clinic.....	34	1	1
Jurisprudence.....	35	—	1
Horseshoeing.....	36	1	1
Infectious Diseases, lectures.....	42	2	—
Autopsies.....	47	1	1
Medicine.....	50a	2	3
Ambulatory Clinic.....	53	2	2
Obstetrics.....	54	5	—
Veterinary Hygiene.....	56	—	1
Clinic and Laboratory Practice.....	200	3	3
Total of credit.....		20	14

DEPARTMENTS; FACILITIES; METHODS;
COURSES OF INSTRUCTION

In the following pages, the names of the departments, with summaries of their particular equipment, facilities, methods, and courses of instruction, are given approximately in the order in which the studies are pursued in the veterinary curriculum.

CHEMISTRY

Chemistry 375. **Elementary Organic Chemistry.** First term. Lectures and laboratory. Five hours credit. Prerequisite, Chemistry 102 or 104. Assistant Professor BRUCE and assistants. M W F S 9, *Baker* 207. Lectures, conferences, and discussion. Laboratory, Th 8-10:30, *Baker* 250. Laboratory fee, \$15.

MICROSCOPY; HISTOLOGY; EMBRYOLOGY

Professor, H. B. ADELMANN.

This department offers instruction in the theory and use of the microscope and its accessories; in vertebrate histology, in vertebrate embryology, and in histologic and embryologic technique; and opportunity for research in all of these subjects. For all the courses the department is well supplied with the best modern apparatus.

The rooms for the use of this department are in the basement and second floor of Stimson Hall. They consist of a large general laboratory, a research laboratory, preparation room, and laboratories for the instructing staff, where also special demonstrations of difficult subjects are given to small groups of students.

In the courses, outlined below, the student gains a practical knowledge of the normal structure of the tissues and organs of the animal body by the direct study of them in the laboratory. From time to time the ability of the student to recognize the normal structure is tested by the identification of unlabeled preparations. The laboratory work is supplemented by recitations, reviews, and lectures covering the general aspects of the subject.

6. Microscopy and Histology. First and second terms. Credit seven hours. Required of first year students. The exercises each week are as follows: First term: Lectures, M F 9. Laboratory, M 10-12; S 10:30-12:30. Second term: Lecture, Th 8:00. Laboratory, M W 10:00-12:30. Professor ADELMANN, Dr. BARDEN, and assistants.

Microscopy. The aim is to give a working knowledge of the theory and use of the microscope and its accessories, methods of mounting microscopical specimens, etc. Laboratory fee, \$6 a term.

Histology. This includes the study of the fine anatomy of the animal body, and also fundamental methods of histologic investigation and demonstration.

9. Embryology. Third year, second term. Credit two hours. The exercises each week are as follows: Lectures, S 8. Laboratory, M 1:40-4. Professor ADELMANN and Mr. WIMSATT. A study of the development of the domestic animals (chiefly cat, dog, pig, sheep, cow, horse), the fetal membranes and placenta, together with a general consideration of sex, inheritance, and the laws of development, maternal impressions, etc.

ANATOMY

Professor, EARL SUNDERVILLE; Assistant Professor, M. E. MILLER.

The instruction in anatomy is by lectures, recitations, and laboratory work, the last being by far the most important. The objects of the lectures are to present facts of general morphology as related to the horse and other domestic animals; to direct attention, as far as possible, to the correlation of structure and functions of the various organs of the body; and to emphasize the anatomical relations of those parts most subject to surgical operations. The main reliance, however, is placed upon the work done in the laboratory. Thorough, practical knowledge of anatomy can be acquired in no other way, and every student, before taking his final examination, will be required to dissect all parts of the horse or the ox, and such parts of other domestic animals as may prove most expedient.

The courses in anatomy extend over three terms. The first year is devoted to the study of bones, joints, muscles, and certain viscera; the second year to the vascular and nervous systems and to the organs of special senses.

In the study of the osseous, muscular, digestive, and respiratory systems, the skeletons in the laboratory and the Auzoux models afford valuable assistance. In the museum there are accumulating series of specimens which illustrate, in a typical manner, some of the more important anatomical features of the various domestic animals.

1. Comparative Osteology. First year, first term. Credit three hours. Lecture, F 11. Laboratory, M 10-12; T 8-12, 1:40-4; Th 10:30-12:30, 1:40-4; S 10-12. Professor SUNDERVILLE, Assistant Professor MILLER, and assistants. Laboratory fee, \$5.

2. **Arthrology.** First term. Credit one hour. This course immediately follows course 1. Professor SUNDERVILLE, Assistant Professor MILLER, and assistants.

3. **Myology and Abdominal Viscera.** First term. Credit three hours. In this course the dissection of muscles is begun. Lectures, laboratory hours, etc., the same as in the preceding courses. Professor SUNDERVILLE, Assistant Professor MILLER, and assistants.

4. **Myology, Thoracic and Abdominal Viscera, Lymphatic System, Organs of Special Sense, and a study of the Topographic Anatomy of the Dog, and the regions of the body most subject to surgical operations.** Second term. Credit six hours. Laboratory work, T F 10-12:30; W Th F 1:40-4. Professor SUNDERVILLE, Assistant Professor MILLER, and assistants. Laboratory fee, \$10.

5. **Blood Vessels and Nerves of the Arm, Leg, and Head.** Second year, first term. Credit five hours. Laboratory work, M W Th F 1:40-4; W 10-12:30. Professor SUNDERVILLE and assistants. Laboratory fee, \$7.

6. **Advanced Anatomy.** First or second term. Credit and hours to be arranged. This course is designed to give students who have completed Courses 1 to 5 the opportunity to carry on advanced work in comparative anatomy. Professor SUNDERVILLE and Assistant Professor MILLER. Laboratory fee, \$4.

200. **Clinical and Laboratory Practice.** Throughout the year. For senior students in Veterinary Medicine only. Credit three hours a term. (This course is given co-operatively by several departments among which students will divide their time.) M W F 2-4:00.

Students will be assigned in small groups to special work in the surgical and small animal clinics, the diagnostic laboratories, and in topographic anatomy, blood and urine chemistry, parasitology, hematology, clinical pathology, bacteriology, and serology.

PHYSIOLOGY

Professors, H. H. DUKES, C. E. HAYDEN; Associate Professor, J. A. DYE; Instructor, M. E. BECKER; Assistant, E. T. COOK.

The laboratories of the department are well equipped for teaching and research in physiology. Adequate facilities are available both in the experimental and the chemical fields.

The work in the lecture and recitation room is correlated with that in the laboratory. The lectures are illustrated with lantern slides, moving pictures, charts, and demonstrations.

Courses 11, 12, 13, 14 and 15 are designed primarily for students in Veterinary Medicine and are required of them. However, if space is available, other qualified students will be admitted, but permission to register must be obtained. The other courses (except course 200) are not a part of the veterinary curriculum.

10. **Animal Physiology.** Either term. Credit three hours. A course of lectures or recitations arranged especially for students in Agriculture, but open to others. Students taking this course should be familiar with the first principles of chemistry. First term, M W F 9; second term, M W F 10. Professor HAYDEN.

11. **Chemical Physiology.** First year, second term. Credit four hours. An introductory course in chemical physiology, including the elements of biophysical chemistry. Lectures or recitations, T Th 8. Laboratory, T 1:40-4; S 8-10:30. Laboratory fee, \$7.50. Professor HAYDEN and Dr. BECKER.

12. **Physiology of the Domestic Animals.** First year, second term. Credit three hours. Lectures and recitations on blood and lymph, circulation, respiration, digestion, and absorption. M W F 8. Professor DUKES.

13. **Physiology of the Domestic Animals.** Second year, first term. Credit three hours. Lectures and recitations on excretion, metabolism, heat regulation, endocrine organs, muscle and nerve, central nervous system, senses, and reproduction. M W Th 9. Professor DUKES.

14. **Experimental Physiology.** Second year, first term. Credit three hours. A course in which special emphasis is placed on mammalian physiology. Confer-

ence, T 9. Laboratory, F 8-1 or S 8-1. Laboratory fee, \$15. Professor DUKES and Dr. BECKER.

15. **Applied Chemical Physiology.** Third year, first term. Credit two hours. A laboratory course in which attention will be given to the normal chemical constituents of blood and urine and the quantitative estimation of such as have been found to be most important in physiological and clinical studies. Laboratory, M F 1:40-4 or W Th 1:40-4. Laboratory fee, \$7.50; deposit, \$5. Professor HAYDEN and Dr. BECKER.

16. **Advanced Experimental Physiology.** Second term. Credit three hours. Prerequisites, Course 12 or 13, or its equivalent, and Courses 14 and 15, or their equivalent. A laboratory course in mammalian and avian physiology. Registration by permission. F 9-1. A conference hour to be arranged. Laboratory fee, \$10. Professor DUKES and Associate Professor DYE.

17. **Special Problems in Chemical Physiology.** Both terms. This course will be adapted to the needs of students and will consist of laboratory work, conferences, collateral readings, and reports. Registration by permission. Hours and credit to be arranged. Laboratory fee, \$2 a credit hour. Professor HAYDEN.

18. **Research.** Both terms. Hours to be arranged. For graduates only. Professors DUKES and HAYDEN, and Associate Professor DYE.

200. **Clinical and Laboratory Practice.** (See page 22.)

303. **Human Physiology.** Either term. Credit three hours. An introductory course designed particularly for students who intend to take only one course in physiology, for those who are preparing to teach biology in secondary schools, and for those who desire a general knowledge of the physiological processes of the human body. Lectures, demonstrations, and discussion periods. M W F 10. *Moore Laboratory 101.* Associate Professor DYE.

305. **Endocrinology and Metabolism.** First term. Credit three hours. Prerequisite, six or more hours each of biology and chemistry. M W F 11. *Moore Laboratory.* Associate Professor DYE.

306. **Laboratory in Physiology.** Second term. Credit three hours. Registration by permission. *James Law Hall.*

Selected experiments to parallel course 305. Discussion period, W 4:15. Laboratory, M F 1:40-4. Laboratory fee, \$10. Associate Professor DYE and assistants.

MATERIA MEDICA AND SMALL ANIMAL CLINIC

Professors, H. J. MILKS and H. C. STEPHENSON; Assistant, A. R. MARTIN.

The instruction in Materia Medica and Small Animal Clinic consists of lectures, recitations, and laboratory work. The work in pharmacology includes not only the action of medicines but also their preparation and uses. The clinic furnishes abundant material for the study of applied therapeutics and the action of different drugs.

20. **Pharmacology.** Second year, second term. Credit four hours. A study of the actions and uses of the various drugs and their preparation. A varied collection of the crude drugs and their official preparations is available. Four lectures or recitations each week. M T Th F 9. Professors MILKS and STEPHENSON. Prerequisite, Veterinary Physiology 11.

21. **Materia Medica and Pharmacy Laboratory.** Second year, second term. Credit two hours. The work in this course consists of the study of a selected group of inorganic drugs and of certain crude organic drugs and their official preparations, and in making pharmaceutical preparations such as syrups, emulsions, spirits, liniments, tinctures, fluid extracts, extracts, ointments, pills, etc. In this study the student is required to write concise notes on the physiologic action of the drugs examined and to make tests of their incompatibility. In addition to this, each student will have practical experience in writing and compounding prescriptions. The importance of a discriminating and accurate system for dispensing medicines is thoroughly emphasized. Five hours a week. Section I,

T 1:40-4, S 10-12:30; Section II, T 10-12:30, Th 1:40-4. Professors MILKS and STEPHENSON. Laboratory fee, \$10.

22. **Diseases of Small Animals.** This course deals principally with canine and feline diseases. Two lectures or recitations throughout the first term of the third year. T Th 9. Professor STEPHENSON. Prerequisites: Special Pathology 41 and 41a, and Physical Diagnosis 51.

22a. **Diseases of Small Animals.** Fourth year, first term. Credit two hours. M W 9. Professor MILKS. Prerequisite: Diseases of Small Animals 22.

23. **Recitations in Materia Medica and Therapeutics.** Third year, first term. Credit two hours. W F 9. Professors MILKS and STEPHENSON. Prerequisite: Pharmacology 20.

24. **Advanced Work.** This course will consist principally of laboratory exercises on the physiological action of drugs on animals and will be supplemented by collateral reading and reports. Five or more hours a week. Professors MILKS and STEPHENSON.

CLINIC FOR SMALL ANIMALS

In this clinic, dogs and cats form the majority of patients. The students have close supervision of the cases; they compound and administer medicines and assist in the surgical operations.

25. **Small Animal Clinic.** Credit one hour a term. Six actual hours a week throughout the third and fourth years. Daily. First and second terms, 10-12. Professors MILKS and STEPHENSON, and assistant.

26. **Elective.** Two hours a week. This will consist of advanced work in pharmacology or in diseases of the small animals. The choice will depend largely upon the interest of each student.

200. **Clinical and Laboratory Practice.** (See page 22).

ANIMAL HUSBANDRY

1. **Livestock Production.** First term. Credit three hours. Lectures, W F 10. *Wing A*. One laboratory period, first year students, W 11-1. *Judging Pavilion*. Professor HINMAN in charge of courses; Professors SAVAGE, HARRISON, and HINMAN, Associate Professors SALISBURY and WILLMAN, and assistants. Laboratory fee, \$2.

Introduction to types, breeds, judging, and management of livestock.

10. **Livestock Feeding.** Second term. Credit three hours. Lectures, M W F 9. *Wing A* and *Veterinary College*. Professor MORRISON and Associate Professor MILLER.

The feeding of farm animals, including the general basic principles, feeding standards, the computation of rations, and the composition and nutritive value of livestock feeds.

DAIRY INDUSTRY

IN THE COLLEGE OF AGRICULTURE

3. **Introductory Dairy Science.** Third year, second term. Credit four hours. Lectures and laboratory practice, W F 1-5. *Dairy* 218 and 146. Professor ROSS and assistants. Laboratory fee, \$7.

EXPERIMENT STATION

Professors, R. R. BIRCH, H. L. GILMAN, and Associate Professor, D. W. BAKER; Instructor, W. S. STONE.

61. **Health and Diseases of Animals.** Arranged especially for students in the College of Agriculture. First term. Credit three hours. Not open to freshmen or to those who have had no course in animal husbandry. Lectures, M W F 11. *Veterinary College*. Professor BIRCH.

The course is designed to give the student a clear conception of the causes and

nature of the diseases of animals, with suggestions for their prevention. Special epizootic diseases are included. Such information as is practicable is given for the treatment of slight injuries and for first aid in emergencies.

62. Animal Parasitology. Third year, first term. Credit three hours. M W F 12. Prerequisite courses: Pathology 40, 40a, and Zoology or Biology.

This is an introductory course with a limited time allowance and as such endeavors to provide the student with a knowledge of fundamental facts and principles about animal parasitisms. Emphasis is given to the biological aspects of the subject such as the interrelations of host and parasite, the life cycle of the parasite, the epidemiological factors, and underlying principles of treatment and prevention rather than to nomenclature and morphology. The specific and detailed directions for the treatment of the principal parasitic diseases of domestic animals are given in the courses in Medicine and Small Animal Diseases and so needless repetition of such information is curtailed. The general principles of treatment which contribute to success or failure are thoroughly discussed. These principles include the manner in which drugs reach the parasites, the mechanism by which the death and removal of the parasite is accomplished and the specific reaction between certain parasites and certain drugs. A comprehensive study of the parasites of the horse, cow, sheep, goat, pig, dog, cat, and certain wild animals of economic importance is arranged on the basis of the parasitism of the host rather than by the more conventional system of zoological affinities. The parasitisms of animals transmissible to man are discussed briefly. Associate Professor BAKER.

62a. Parasites Laboratory. A companion course to 62 with the same prerequisites. Credit one hour. Section I, T 1:40-4; Section II, M 1:40-4. Laboratory fee, \$3. A study of the protozoal, helminth, and arthropod parasites of domestic animals. Parasitized animals will be used for the study of symptoms and therapeutics. External and internal parasites removed from these hosts will be used for anatomical examination. Post-mortem examinations of parasitized animals will be supplemented by microscopic examinations of prepared specimens. A study of technique includes the collection, preservation, staining, and mounting of specimens, and microscopic examination of blood smears, urine, and feces for presence of protozoa or helminth ova. Associate Professor BAKER.

63. Advanced Work in Animal Parasitology. First and second terms. Credit one to three hours, by arrangement. Prerequisite courses 62 and 62a. For advanced undergraduate and graduate students. Special problems concerned with the parasites of domestic animals. Associate Professor BAKER.

SURGERY

Professor, J. N. FROST; Associate Professor, A. G. DANKS; Instructor, C. J. HALLER.

The instruction consists of classroom and laboratory work designed to afford symmetrical training for practice.

THE CLASSROOM WORK

Course 30 in General Surgery, Course 40 in General Pathology, and Course 31 in Surgical Exercises together constitute a group designed to impart a general knowledge of the principles of surgery, surgical pathology and therapeutics, and operative technique.

Course 32, a total of eighty lectures and recitations, is devoted to the surgery of the various regions of the body.

The College possesses an extensive collection of surgical instruments and apparatus of home and foreign make, illustrating the history of veterinary surgery as indicated by the means employed in the cure of diseases. The College has acquired since its foundation an extensive pathological collection illustrative of surgical diseases, to which has been added from the surgical and obstetrical clinics a large amount of material of value for teaching purposes. Further important additions are made by veterinary practitioners. The surgical collection is especially rich in specimens illustrating the diseases of the teeth.

CLINICS AND LABORATORY WORK

The laboratory work in the Department of Surgery includes Surgical Exercises and Clinics. The course in surgical exercises comprises sixteen periods of three hours each, in which the student is required to perform all the important operations on horses and cattle. The animal for a given exercise is placed under general anaesthesia, which is maintained until the close of the period, when the subject is destroyed. The maintenance of chloroform anaesthesia for three consecutive hours gives the student valuable experience in the technique of general anaesthesia, for which there is a constantly increasing demand. Strict method is enforced in relation to asepsis and antisepsis, arrest of hemorrhage, suturing, and dressing, so that, while acquiring skill and knowledge of the appearance, resistance, and general character of living tissues, the student also forms proper habits in surgical procedure.

CLINICAL SURGERY OF THE LARGER ANIMALS

M W F, first and second terms. One year. Students in charge of cases are required to give necessary daily attention.

The surgical building has thoroughly modern equipment in every respect. There is a spacious operating room fitted with operating table, stocks, and other conveniences, a commodious recovery room for chloroformed animals, and other accessory rooms for instruments, drugs, and other necessities. The entire structure is planned to secure the highest efficiency in aseptic and antiseptic surgery. Senior students assist regularly in the surgical operations.

General and local anaesthetics are regularly used in painful operations, and the student is taught to eliminate, as far as practicable, the element of pain in surgery. Instruments and apparatus of the most approved pattern are kept directly at hand in the operating room, and the student becomes familiar with their good and bad points by actual use.

Special apparatus for investigation is supplied as needed. Advanced students are called upon to assist in the various investigations, and thus become not only more familiar with surgical manipulations but also inspired to study methodically and effectively the many questions in surgical pathology and therapeutics. They also become better prepared to cope promptly and properly with the many atypical cases constantly occurring in general practice.

30. **General Surgery.** Third year, first term. Four recitations or laboratory periods a week. M 9; T Th 8; S 8-10:00. Dr. DANKS. Prerequisite courses are 1, 2, and 3 in Anatomy, Course 10 in Physiology, Course 6 in Histology.

31. **Surgical Exercises.** Three hours a week of laboratory work in surgical operations upon anaesthetized animals. Third year, first term. Section I, Th 1:40-4; Section II, T 1:40-4. Drs. DANKS and HALLER. Laboratory fee, \$20.

32. **Special Surgery.** Third year, second term. Five lectures or recitations a week. M T W Th F 9. Professor FROST or Dr. DANKS.

34. **Consulting Clinic.** Six actual hours a week for four terms. Daily at 10-12. Professor FROST and Drs. DANKS and HALLER.

35. **Jurisprudence, Ethics, and Business Methods.** One lecture a week. Fourth year, second term. F 9. This course is given chiefly by members of the legal and medical professions and by non-resident veterinarians.

36. **Horseshoeing.** Laboratory and lecture. Fourth year. First term: laboratory, Section I, T 2-4; Section II, Th 2-4. Prerequisite, Special Surgery 32. Second term: lecture, W 9. Prerequisite, first term's laboratory. Professor FROST.

37. **Horseshoeing Short Course.** Four weeks' training for farmers and farm boys who wish to gain sufficient knowledge to shoe their own horses. One course during the month of November and one during the month of January.

200. **Clinical and Laboratory Practice.** (See page 22.)

MEDICINE, OBSTETRICS, AND AMBULATORY CLINIC

Professor, M. G. FINCHER; Assistant Professors, W. J. GIBBONS and S. J. ROBERTS; Instructor, S. D. JOHNSON; Research Assistant, JEAN F. HOFSTAD.

The course in veterinary medicine, principles and practice, extends over the last two years of undergraduate study, the subjects of the second year being distinct from, and complementary to, those of the first. It includes the constitutional, dietetic, and toxic affections and the non-infectious maladies of the different systems of organs—digestive, respiratory, circulatory, urinary, cutaneous, and visual—of the various genera of domestic animals. It also includes a study of the clinical phases of infectious diseases and the disturbances of metabolism.

Our proximity to the city and to a well-stocked agricultural country tends to secure a greater variety of patients than can be had in a large city remote from country flocks and herds. Students take charge of individual cases in the hospital and ambulatory clinic and keep a record of each with treatment. The course also includes instruction in diagnosis. Through the medium of laboratory guides students are expected to acquire a methodical system of examination by repeated systematic observations on both normal and diseased animals. The work involves the use of various special diagnostic methods taught in our own and in other laboratories of the College, such as examination of the blood, milk, urine and feces, the application of sero-diagnostic methods, etc.

AMBULATORY CLINIC

An ambulatory or out-clinic is conducted for the purpose of giving instruction to students under conditions identical with those encountered in private practice. Proper conveyances and equipment are provided and an opportunity offered for observing such diseased farm and dairy animals as cannot be entered in the clinics of the College. The student thereby not only has an opportunity to see cases not readily brought to the college clinic, but also assists in handling cases in the same manner and under the same environment as are required of the country practitioner. As the vicinity of Ithaca is largely devoted to dairying, valuable clinical material relating to obstetrics and the diseases of dairy cows is available and is extensively used.

50. **Veterinary Medicine, Principles and Practice.** Lectures or recitations. Third year. First term, M W F 8; second term, T Th 8.

50a. **Veterinary Medicine, Principles and Practice.** Fourth year. First term, T Th 8; second term, M W F 8.

51. **Physical Diagnosis.** Two recitations or lectures a week. Second year, second term. Credit two hours. M F 8.

53. **Ambulatory Clinic.** Throughout the senior year. Credit two hours each term. One hour a week is devoted to a review and discussion of the cases treated in the clinic. Recitations, first term, F 9; second term, M 9.

54. **Obstetrics, including Diseases of Genital Organs of Cattle, Sterility, Abortion.** Four lectures or recitations and one laboratory section a week in the first term of the fourth year. M W 8; T Th 9. Section I, Th 2-4; Section II, T 2-4. It is aimed in this course to give a general survey of the subject of obstetrics, and to include a thorough consideration of the diseases of the genital organs, including sterility and abortion. Obstetrical exercises are given by appointment throughout the year. For this work a specially constructed apparatus or "phantom" is employed in such a manner as to closely simulate actual working conditions in obstetrical practice. Newborn calves are procured, killed, and so placed in the apparatus that the various corrections of position and embryotomic operations may be carried out by the student under the direction of the instructor in charge.

Clinical instruction in obstetrics is given in Course 53.

55. **Ophthalmology.** One lecture or recitation a week. Third year, second term. W 8.

56. **Hygiene.** One lecture or recitation a week. Fourth year, second term. T 8.

Special Lectures. During the year, lectures on special topics in medicine will be given by eminent practitioners and teachers of veterinary medicine. These will form a part of the instruction in this department.

Opportunities for Research. The activities of the department, aside from the instruction work, are devoted to research in connection with diseases of cattle, including mastitis, the phenomena of sterility and abortion in animals of breeding age, and of diseases of newborn calves having intimate relation to the diseases of the genital organs of cows. Opportunity is afforded for participation in the investigations by graduate students having acceptable preparation.

PATHOLOGY AND BACTERIOLOGY

Professors, W. A. HAGAN, PETER OLAFSON; Associate Professors, E. L. BRUNETT, ALEXANDER ZEISSIG; Assistant Professors, C. W. BARBER, P. P. LEVINE, K. F. HILBERT (at Farmingdale); Instructors, W. M. EVANS, H. D. HOPPER, A. B. HOERLEIN, M. S. HOFSTAD, A. S. CHARLES (at Farmingdale); Assistants, R. B. JOHNSON, JOHN BENTINCK-SMITH; Research Fellows, N. G. SIMELS (at Farmingdale).

The laboratories of the department are well equipped with modern apparatus providing opportunity for advanced work, for those students who are properly prepared, in pathological anatomy, autopsy work, pathogenic bacteriology, and immunity. The department operates two diagnostic laboratories, one for poultry diseases and the other for general diagnostic work, to which a great deal of pathological material and blood samples for serological testing comes from all parts of the State. These laboratories furnish an abundance of fresh materials for teaching work and for research in animal diseases. The clinics and the routine autopsies also furnish material.

The following courses are required in the curriculum of the Veterinary College and are given particularly for veterinary students. When there is room for them, properly prepared students of other colleges will be admitted, but permission to register must be obtained in each case.

40. **General Pathology.** Second year, first term. Credit two hours. Prerequisite, course 6 (Microscopy and Histology) or equivalent. In addition it is desirable that the student shall have had at least one year's work in anatomy and physiology. In special cases of students who are majoring in biology and expect to take no further work in pathology, these prerequisites may be waived in part. When this is done, the course will not be accepted as a prerequisite for other courses. Recitations, T Th 8. Dr. OLAFSON.

40a. **General Pathology Laboratory.** Credit two hours. Course 40 must be taken simultaneously or have been completed previously. Section I, T 10-12:30; F 8-10:30. Section II, M 10-12:30; Th 10-12:30. Laboratory fee, \$5. Drs. OLAFSON and HOPPER.

41. **Special Pathology.** Second year, second term. W S 8. Credit two hours. Prerequisite course 40a. Dr. OLAFSON.

41a. **Special Pathology Laboratory.** Credit two hours. Course 41 must be taken simultaneously, or have been completed previously. Second year, second term. Section I, T Th 10-12:30. Section II, W 1:40-4; S 10-12:30. Laboratory fee, \$5. Drs. OLAFSON and HOPPER.

42. **Pathology of Infectious Diseases.** Fourth year, first term. Credit two hours. Prerequisites, courses 41 and 49. Recitations, T Th 12. Dr. HAGAN.

43. **General Bacteriology.** Second year, first term. Credit two hours. Lectures and recitations, M W 8. Dr. HAGAN.

43a. **General Bacteriology Laboratory.** Credit two hours. Open to students who have taken or are taking course 43 or its equivalent. Section I, M Th 10-12:30. Section II, T 10-12:30; S 8-10:30. Laboratory fee, \$10. Drs. ZEISSIG, HOERLEIN, and JOHNSON.

46. **Diseases of Poultry.** Third year, second term. Credit two hours. Prerequisite, course 49a. T F 12. Dr. BRUNETT.

47. **Autopsies.** Throughout the third and fourth years. Daily 10-12. Credit one hour in fourth year. Drs. OLAFSON, HOPPER, BRUNETT, and HOFSTAD.

48. **Food Hygiene.** Third year, second term. Credit two hours. Prerequisites, courses 41 and 49. Lecture, M F 8. Dr. ZEISSIG.

49. **Pathogenic Bacteriology.** Credit two hours. Prerequisite, course 43, or its equivalent. Second year, second term. T Th 8. Dr. HAGAN.

49a. **Pathogenic Bacteriology Laboratory.** Credit three hours. Second year, second term. M W F 10-12:30. Laboratory fee, \$10. Dr. ZEISSIG.

NOTE: The following courses are not a part of the regular veterinary curriculum. Course 170 is given especially for students of poultry husbandry in the College of Agriculture. Course 149 is given to accompany Course 49 for those students who have had no work in pathological anatomy. The others are for graduate and advanced undergraduate students. Permission to register must be obtained by all students electing these courses.

149. **Pathogenic Bacteriology Laboratory.** Credit two hours. Students must have completed, or take simultaneously, course 49. T 1:40-4; Th 1:40-4. Laboratory fee, \$10. Drs. ZEISSIG, HOERLEIN, and JOHNSON.

150. **Laboratory Methods of Diagnosis.** Credit one to three hours. Prerequisites, courses 41a and 49a or 149. Hours by appointment. Dr. EVANS.

Instruction and practice in the application of bacteriological, pathological, and serological methods for the diagnosis of disease.

151. **Immunological Methods.** First term. Credit two hours. Prerequisites, Courses 49 and 49a or 149. Class limited to twelve students. Two laboratory periods. T Th 1:40-4:00. Laboratory fee, \$10. Dr. ZEISSIG.

152. **Advanced Work in Pathology, Bacteriology, or Immunology.** First and second terms. Credit one to three hours. Hours to be arranged. Laboratory fee, \$2 a credit hour. Drs. HAGAN, OLAFSON, and ZEISSIG.

Properly prepared students may undertake special problems or receive special assignments.

153. **Hematology.** Second term. Credit one hour. One lecture and laboratory session a week. Th 1:40-4:00. Laboratory fee, \$2. Dr. OLAFSON.

154. **Seminar.** First and second terms. T 4:15. No credit. Required of all graduate students. Undergraduate students are admitted.

170. **Poultry Hygiene and Disease.** First term. Credit two hours. Prerequisites: Animal Physiology (Veterinary 10), or Human Physiology (Arts 303) and Agricultural Bacteriology 3. Lectures, T Th 10. Dr. LEVINE. (Special course for students of poultry husbandry.)

200. **Clinical and Laboratory Practice.** (See page 22.)

MILITARY SCIENCE AND TACTICS

1. **Basic Course.** Required. Throughout the year. The complete course covers two years. Three hours a week, either M T W or Th, 1:40-4:10 P. M.

The course of training is that prescribed by the War Department for Senior Division Units of the Reserve Officers Training Corps for basic students. Students in the Veterinary College must take the Field Artillery Course. For details concerning the course see the Announcement of the Department of Military Science and Tactics.

Required of all able bodied first year male students in the Veterinary College who are American citizens, and candidates for a baccalaureate degree. The requirements of Military Science and Tactics must be completed in the first terms of residence, otherwise the student will not be permitted to register again in the University without the consent of the faculty.

Advanced standing. With the approval of the Department of Military Science and Tactics, credit may be allowed a student for all or part of the Basic Course requirement, upon presentation of evidence of satisfactory work completed at an approved institution.

APPENDIX A

OPENINGS FOR VETERINARIANS IN AMERICA

The field of veterinary medicine offers excellent opportunities for those who have a liking for medicine and are interested in animals. The work often is rigorous. The compensation varies greatly. Salaried positions usually begin at from \$1,800 to \$2,000 per annum. After five to ten years good men often earn from \$3,000 to \$4,000, occasionally from \$4,000 to \$6,000, rarely more than \$6,000. In private practice the net income varies from \$1,500 to \$10,000 or more, depending upon location and ability. It may be said, therefore, that one can seldom become wealthy as a veterinarian, but intelligent and conscientious service usually is rewarded by sufficient income to provide the necessities and some of the comforts of life. Those who are genuinely interested in the work have the satisfaction of serving a useful purpose; those who are looking for great financial return are advised to look elsewhere.

Some of the opportunities for veterinary graduates are recited below:

I. PRIVATE PRACTICE.

Veterinary practice is a wide field with excellent opportunities for well-qualified persons. Practice may be (a) general, in which the individual offers his services in dealing with all species of animals, (b) small animals, in which only household pets are treated, or (c) special, in which only certain specific conditions are handled. About two-thirds of the graduates of veterinary colleges sooner or later become private practitioners.

II. SALARIED POSITIONS.

About one-third of veterinary graduates obtain positions on a salary basis. The majority of these are with the federal, state, county, and municipal governments, the remainder with private corporations.

A. PRIVATE CORPORATIONS.

Many veterinarians are employed by the large milk companies, by large stock farms, by serum and virus manufacturers, and by drug manufacturers.

B. GOVERNMENTAL AGENCIES WHICH EMPLOY GRADUATE VETERINARIANS ARE:

1. *Bureau of Animal Industry, U. S. Department of Agriculture.*

This Bureau employs more veterinarians than any other single agency. The greatest number are engaged in meat inspection, but many act as livestock agents and inspectors, inspectors in quarantine stations, and inspectors in biologic production plants, others are engaged in research and investigations in laboratories and in the field. All appointments are made from Civil Service lists. The initial rating of Junior Veterinarian carries a salary of \$2,000 per annum.

2. *Veterinary Corps, U. S. Army.*

The Veterinary Corps of the Army demands a limited number of veterinarians as replacements. Appointment is by examination and the initial rank is first lieutenant. Advancement is definitely provided for according to the period of service. The highest available rank is that of colonel. The initial salary is \$2,000 per annum plus quarters, including heat and light, and a subsistence allowance of \$1.20 a day. Army service carries with it free medical and dental service for the officer and his family, hospital service at a nominal charge (for food only), and liberal retired pay after the age of 64. The maximum pay of a colonel with allowances is \$7,200 a year. At present the Civilian Conservation Corps, under Army direction, employs a considerable number of Veterinary Reserve Officers as food inspectors.

3. *State Governments.*

Every state has a state veterinarian or similar officer, usually in the department of agriculture, whose duties are to look after the health of animals by enforcing laws and regulations drawn for this purpose. In many states the state veterinarian has a corps of assistant veterinarians.

Many state health departments have one or more veterinarians on their staffs to advise on animal diseases that have significance in human health and to investigate outbreaks of such diseases.

Practically every agricultural school has a veterinary department, some of these employing five or six veterinarians as research workers and teachers. There are ten veterinary colleges in the United States, these having staffs of from ten to thirty veterinarians.

4. *Municipal Governments.*

Most cities employ graduate veterinarians on a full-time basis, and many towns and villages on a part-time basis, as members of their health departments. The duties of these men usually are connected with the sanitary control of meat and milk.

APPENDIX B

LEGAL REQUIREMENTS TO PRACTICE VETERINARY MEDICINE IN THE UNITED STATES

Before one can practice veterinary medicine in the United States he must obtain a license from the state or states in which he locates. This license generally is issued by the department of education or the department of agriculture on the basis of an examination set by a veterinary licensing board. Some states issue licenses without examination by reciprocity when the applicant has been licensed in other states.

Information about the licensing laws of the various states can usually be obtained by directing a letter of inquiry to the department of agriculture or the state veterinarian in the state capital.

In New York the licensing agency is the State Education Department, Albany, New York. Examinations are given semi-annually, in January and June in Ithaca, New York. Applicants are required to furnish evidence of adequate pre-professional as well as professional education, of a good moral character, and of being at least 21 years of age. Application for the examination must be filed at least 15 days before the scheduled date, and must be accompanied by a fee of ten dollars. Before a licensee can legally undertake practice in New York his license must be duly registered by the county clerk in the county in which his place of business is located.

CATALOGUE OF STUDENTS

GRADUATE STUDENTS

Becker, Milford Earl, D.V.M., Hofstad, Melvin Sidney, D.V.M.,
Altamont. *Starkweather, N. D.*
 Hoerlein, Alvin Bernard, D.V.M.,
Fort Collins, Colo.

FOURTH YEAR, CLASS OF 1943

JANUARY SECTION

Adolph, William Henry, *Pekin, China.*
 Arnaboldi, Allan Charles, *Mt. Sinai.*
 Becker, Milford Earl, *Altamont.*
 Brungot, Norman Stanley, *Berlin, N. H.*
 Brungardt, Harry Frederick, *Douglas-ton.*
 Cleveland, Howard Joseph, *Cattaraugus.*
 Conklin, Erwin Arthur, *Richville.*
 Dillmann, Eugene George, *Bellmore.*
 Fisher, Bernard, *Columbiaville.*
 Gilbert, Edwin Ormont, *West Orange, N. J.*
 Gumaer, Kenneth Irving, *Poughkeepsie.*
 Halpin, George Doyle, *Jamesville.*
 Haner, Frank Henry, jr., *Hensonville.*
 Hokanson, John Francis, *Pleasantville.*
 Hopper, Henry Dean, *Ridgewood, N. J.*
 Huckle, John James, *Clyde.*
 Jenkins, DuBois LeFevre, *New Paltz.*
 Kiesel, George Kuhn, *Manhasset.*
 Kotchek, Leo, *Brooklyn.*
 Lanfair, Clyde Everett, *Warrensburg.*
 Larson, Leonard John, *Merrick.*
 Lewis, Norman Francis, *Flushing.*
 Lindsey, Lionel Woodrow, *Seneca Falls.*
 Lipman, Bernard, *Brooklyn.*
 McKowan, Donald Claude, *Franklin.*
 Majilton, Edward Anderson, *Catskill.*
 Matuszczak, Walter John, *Lowville.*
 Moul, Andre Lillian, *Gloversville.*
 Paddock, Nicholas, *Bath.*
 Phillips, Webster Vernon, *Amenia.*
 Proper, John Shepard, *Honeoye Falls.*
 Ruebush, Ephraim Edgar, jr., *Washington, D. C.*
 Tymchyn, Victor John, *Altamont.*
 Ulrich, Carlton Louis, *Buffalo.*
 Woolfe, Daniel, *Brooklyn.*
 Young, George Asbury, jr., *Lincoln, Nebr.*
 Zimmerman, Theodore, *New York City.*

FOURTH YEAR, CLASS OF 1943

OCTOBER SECTION

Arnaboldi, Joseph Paul, *Mt. Sinai.*
 Bandes, Gerald Harry, *New York City.*
 Berdan, Leonard Nellis, *Salem.*
 Boardman, Don Arol, jr., *Rome.*
 Bradley, Dorothy Eleanore, *Lockport.*
 Coye, Elmer Nathan, *Naples.*
 Crawford, Everett John, *Angelica.*
 Doig, Robert Speer, *Walton.*
 Dragoo, Paul Orloff, *Schenevus.*
 Elmer, Everett Kermit, *Malone.*
 Ferber, Leonard, *Flushing.*
 Fish, Richard Barrett, *Canistota.*
 Gage, Thomas Asa, *Kinderhook.*
 Gillespie, Richard Joseph, *Brooklyn.*
 Goldberg, Abie, *Hudson.*
 Goodman, Merrill, *Livingston Manor.*
 Goss, Allen Carlyle, *Stamford.*
 Grover, Boynton Arnold, *Plattsburg.*
 Jastremski, Maurice Michael, *Richfield Springs.*
 Jones, Wallace Gordon, *Smithtown Branch.*
 Karmin, Leo Raymond, *New York City.*
 Malmberg, Rex Albert, *Ashville.*
 Palmer, Hallsey Ralph, *Yorktown Heights.*
 Parmelee, Richard Hall, jr., *Geneva.*
 Radziwiller, Saul, *Brooklyn.*
 Richards, John William, *Akron.*
 Rickard, Charles Glenwood, *Ithaca.*
 Rippes, Jerome Harold, *Flushing.*
 Robertson, Colin Mitchell, *Tuckahoe.*
 Simpson, Charles Floyd, *East Orange, N. J.*
 Smith, Edwin Browning, *Gainesville.*

Studdert, Hugh Patrick, *Philipsburg, Mont.*
 Tanis, John, *Augusta, N. J.*
 Troyansky, Matthew, *Brooklyn.*

Tweddle, John Richard, *Montgomery.*
 Vail, John Irving, *Bristol, Conn.*
 Zepp, Clarence Peter, jr., *New York City.*

THIRD YEAR, CLASS OF 1944

Baker, DeWitt Theodore, *Ithaca.*
 Basom, Richard Russell, *Corfu.*
 Bentinck-Smith, John, *Milton, Mass.*
 Berman, David Theodore, *Brooklyn.*
 Byrne, Robert Joseph, *Middletown.*
 Clement, Edwin Prescott, *Cortland.*
 Davis, Arthur Erwin, *Olivebridge.*
 Delahanty, Donald Dee, *College Point.*
 Erb, Frederick Austin, *Hudson, N. H.*
 Flint, Jack Gregory, *Manhasset.*
 Gott, Anne Hastings, *Pittsford.*
 Haller, Clyde Manford, *LaFargeville.*
 Hartley, Clinton Eugene, *Amsterdam.*
 Hoag, Warren George, *Gilboa.*
 Holden, Chester James, *Buffalo.*
 Keith, Florence E., *Greenlawn.*
 King, William Patrick, *Beacon.*
 Leonard, Harmon Cook, *Wallingford, Conn.*
 Lipman, Arthur, *Brooklyn.*
 Lipsky, David Edmond, *Brooklyn.*
 Lockwood, Floyd Addison, *Bainbridge.*
 Lukens, Walter Benedict, *Middletown.*
 McEntee, Kenneth, *Oakfield.*

McEvoy, Richard Kane, *Preble.*
 Maker, Wilber Cushing, *Reed's Ferry, N. H.*
 Mettler, John Joseph, jr., *Hillsdale.*
 Moore, Lloyd Edward, jr., *Amsterdam.*
 Morse, Erskine Vance, *Scarsdale.*
 Neubecker, Jeanne Martha, *Brooklyn.*
 O'Dea, Joseph Charles, *Gardiner.*
 Patton, Herbert William, *Ithaca.*
 Porter, David Bruce, *Mount Morris.*
 Povar, Morris Leon, *New York City.*
 Rappaport, George Elliott, *Brooklyn.*
 Robinson, Charles Richard, *Madison, N. J.*
 Rossoff, Irving Sylvius, *New York City.*
 Sayres, Joseph Patrick, *Peekskill.*
 Schaer, William George, *Hollis.*
 Tillou, Donald Albert, *Hamburg.*
 VanDeusen, Carlisle Watson, *Malone.*
 Vaughn, Thurman Church, *Greenville.*
 Whitehead, Roland Grant, *Monroe.*
 Young, Clayton Samuel, *Randolph.*

SECOND YEAR, CLASS OF 1945

JANUARY SECTION

Bardwell, Robert Edward, *Lexington, Ky.*
 Bartz, Norman William, *Getzville.*
 Benson, Kenneth Warner, *Dover Plains.*
 Berrigan, Martin Vincent, *New Rochelle.*
 Beyer, Theodore John, *New York City.*
 Bower, Stanton Ellsworth, *Angola.*
 Colvin, A. Stanton, *Wolcott.*
 Darrow, William Patrick, *Poughkeepsie.*
 Drew, Donald Roe, *Warwick.*
 Duncan, Charles Stuart, *Binghamton.*
 Greer, Russell Flagg, *Suffield, Conn.*
 Haifleigh, William James, *Dolgeville.*
 Harmon, Howard, *New York City.*
 Jones, Russell Kay, *Scarsdale.*
 Kiehle, Kenneth Lee, *Livonia.*
 Klein, Alvin Stanley, *New York City.*
 Kraft, Lisbeth Martha, *Ithaca.*
 Langman, James Hanford, *Oxford.*
 Lewis, Gilbert, *Jamaica.*
 Lewis, Ralph Wesley, *Mooers.*

Liebig, Philip Henry, *Granville.*
 Lopez, Robert Albert, *New York City.*
 Lynch, Thomas Joseph, *Tuxedo Park.*
 McMurray, Homer Francis, *Nashua, N. H.*
 Mitchell, Grayson Bates, *Kings Ferry.*
 Morrow, Gordon Gifford, *Ithaca.*
 Newman, Ray Calvin, *Ithaca.*
 Norris, Jacquelyn Ann, *Rochester.*
 Radzwiler, Harry, *Brooklyn.*
 Ritter, Andrew Samuel, *Hudson.*
 Roper, Calvin Barclay, *Bayside.*
 Shaffer, Joseph Cecil, *Brooklyn.*
 Stein, Hermann Bernard, *Roslyn Heights.*
 Walker, Robert David, *Sea Cliff.*
 Watson, James Paul, *Lakewood, Pa.*
 Wester, Ralph Foster, *Clinton.*
 Wilcox, Harrison Jesse, jr., *Binghamton.*
 Zellner, Carleton Martin, *Oneida.*

FIRST YEAR, CLASS OF 1945

OCTOBER SECTION

- Abbott, George Wells, *Worcester, Mass.*
 Allston, Robert Harry, *Ilion.*
 Bartle, Francis Guy, *Montgomery.*
 Bullock, Alden Leiff, *Avenal, Calif.*
 Bush, Neill Earl, *Ithaca.*
 Cummings, Harold James, *Averill Park.*
 Delano, Ray Osborne, jr., *Dorchester, Mass.*
 Dimon, Myron Loyal, *Parish.*
 Dubin, Theodore, *New York City.*
 Duboveck, John, *Margaretville.*
 Finlay, John Wallace, *Long Island City.*
 Fox, Francis Henry, *Clifton Springs.*
 Goebel, John David, *New City.*
 Goode, George Alfred, *Kings Park.*
 Grant, Roger Alva, *Chaumont.*
 Hartenstein, Chester, *Brooklyn.*
 Herlitz, George Hans, *New York City.*
 Horton, Robert Ellsworth, *Lodi.*
 Kandl, John Frederick, *New York City.*
 Klein, Walter Marvin, *Brooklyn.*
 McBee, John Adair, *Strawberry Plains, Tenn.*
 MacCallum, Alexander, *Duncan, Cranford, N. J.*
 Marshak, Reuben, *New York City.*
 Martocci, John, *New York City.*
 Mellon, Ward Eichler, *Camden.*
 Palmiter, Richard Leslie, *Utica.*
 Phelps, John Lester, *River Forest, Ill.*
 Reighley, John Henry, jr., *Valley Stream.*
 Rothblatt, Michael, *New York City.*
 Schimoler, Louis Charles, *Floral Park.*
 Schmitt, William Francis, *Elmhurst.*
 Seader, Saul Bernard, *Far Rockaway.*
 Shigley, Robert Fremont, *State College, Pa.*
 Smith, Harry Norman, *Neptune, N. J.*
 Smithcors, J. Frederick, *Ithaca.*
 Van Gelder, Richard Frank, *Bath.*
 Vetter, Roland Frederick, *New York City.*
 Wallace, Carl Nelson, *Bath.*
 Watts, Minor Frederick, *Patchogue.*
 Wheat, John Donald, *Syracuse.*

PRACTITIONERS COURSE

- Robert, Adolfo, D.V.M., *LaPlata, Argentina.*
 Harkavy, Morris, D.V.M., *Mt. Vernon.*

SUMMARY

Graduate students, 3; 4th year (two classes), 74; 3rd year, 43; 2nd year, 38; 1st year, 40; practitioners, 2; Total, 200.

INDEX

- Admission, 11-13
- Advanced standing, 13
- Agriculture, combined course, 15
- Ambulatory clinic, 27-28
- Anatomy, 21
- Animal husbandry, 24
- Arts and Sciences, combined course, 15
- Bacteriology, 28-29
- Buildings, 8-10
- Calendar, University, 2
- Chemistry, 20
- Clinics, 22, 23, 24, 26, 27, 29
- Council, State College, 5
- Curriculum, 19-29
- Dairy industry, 24
- Departments, 20-29
- Embryology, 21
- Examinations, 30-31
- Expenses, 18
- Experiment station, 24-25
- Faculty, 4-5
- Farm Practice, 11-12
- Fees, 15-17
- Flower, Roswell P., Library, 10-11
- Foreign students, 15
- Foundation of the College, 7
- Graduate study, 13-14
- Graduation, requirements, 19
- Histology, 21
- Law for New York practice, 31
- Lecturers, non-resident, 5
- Libraries, 10-11
- Materia medica, 23-24
- Medicine, 27-28
- Microscopy, 21
- Military science, 29
- Museums, 10
- Objects of the College, 7-8
- Obstetrics, 27-28
- Openings for Veterinarians, 30-31
- Pathology, 28-29
- Physiology, 22-23
- Poultry, 28
- Practice, law for, 31
- Practitioners, study, 14
- Prizes, 17-18
- Registration, 15
- Research, 14
- Schedule, 19-20
- Scholarships, 17-18
- Self-help, 18
- Seminars, 14
- Situation, 8
- Small Animal clinic, 23-24
- Student conduct, 18
- Students, 32-34
- Surgery, 25-26
- Tuition, and other fees, 15
- Vaccination, 13
- Veterinary student qualifying certificate, 11
- Willard Straight Hall, 16